In the Claims

1. (Currently amended) A method for transmitting data over a wireless link to a gateway providing access to a wide area network, the method comprising:

encrypting a payload according to a first encryption algorithm;

adding a header to the encrypted payload to form a data packet;

encrypting the encrypted payload and the header of the data packet according to a second encryption algorithm, the second encryption algorithm being an encryption algorithm used for secured communications over the wireless link ~~so that the payload is at least twice encrypted and the header is at least once encrypted~~; and

transmitting the encrypted data packet over the wireless link ~~only after at least twice encrypting the payload~~.

2. (Currently amended) The method of claim 1, wherein the first algorithm uses ~~encrypting a payload further comprises encrypting the payload with~~ a symmetric key.

3. (Currently amended) The method of claim 1, further comprising:

receiving the data packet at the gateway ~~a first device~~;

~~performing a first decryption of the~~ decrypting data packet at the gateway by according to the second algorithm ~~first device~~;

forwarding the recovered data packet to a computer on the wide area network ~~second device~~; and

~~performing a second decryption of~~ decrypting the payload at the computer on the

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wide area network according to the first algorithm ~~second device~~.

4. (Currently amended) The method of claim 1, ~~further comprising:~~

~~creating~~ wherein the first algorithm uses a symmetric session key~~;~~

~~wherein the payload is encrypted with the symmetric session key~~.

5. (Canceled).

6. (Currently amended) A device for transmitting data over a wireless link to a gateway providing access to a wide area network, comprising:

a wireless transceiver; and

an encryption engine coupled to the wireless transceiver for encrypting a payload according to a first encryption algorithm, adding a header to the payload to form a data packet, and encrypting the data packet according to a second algorithm, the second encryption algorithm being an algorithm for secured communications over the wireless link~~;~~

~~a processor coupled to the encryption engine and to the wireless transceiver and configured to execute the encryption algorithms~~.

7. (Canceled).

8. (Currently amended) The device of claim 6, wherein the payload ~~further~~ comprises location information regarding the location of the wireless device.

9. (Currently amended) The device of claim 6, wherein the first encryption algorithm employs a symmetric key.

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10. (Currently amended) A method for secured communication between a mobile device and a server on a wide area network, comprising:

generating a symmetric session key at the mobile ~~a first~~ device;

encrypting the symmetric session key at the ~~first~~ mobile device using a public key associated with ~~a second device~~ the server;

transmitting the encrypted session key to the server over a wireless link with a gateway to the wide area network ~~second device~~;

decrypting the encrypted session key at the server ~~second device~~ using a private key ~~associated with~~ corresponding to the public key;

encrypting a payload using the symmetric session key at the mobile ~~first~~ device;

adding a header to the payload to form a data packet at the ~~first~~ mobile device;

encrypting the encrypted payload and the header of the data packet using an encryption algorithm for secured communications over the wireless link to form an encrypted data packet at the ~~first~~ mobile device; and

transmitting the encrypted data packet from the mobile ~~first~~ device to the gateway.

11. (Currently amended) The method of claim 10, further comprising:

receiving the encrypted data packet at the gateway ~~a third device~~;

decrypting the encrypted data packet at the ~~third device to form~~ gateway to recover a decrypted data packet, the decrypted data packet having ~~an~~ the encrypted

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payload encrypted with the symmetric session key;

forwarding the decrypted data packet to the server over the wide area network ~~second device~~;

decrypting the payload at the server ~~second device~~ using the decrypted session key.

12-14. (Canceled).

15. (Original) The method of claim 10, wherein the payload includes location information.

16. (Currently amended) The method of claim 10, wherein the generating a symmetric session key at ~~a first~~ the mobile device further comprises generating the symmetric session key based on a random number.

17. (Original) The method of claim 10, wherein the encrypting a payload using the symmetric session key employs at least one of the encryption algorithms DESX or DES.

18-19. (Canceled).

20. (Currently amended) The method of claim 1 ~~18~~, wherein the ~~encrypting a payload further comprises encrypting the payload using~~ first algorithm comprises at least one of the encryption algorithms DESX or DES.

21-24. (Canceled).

25. (Currently amended) The method of claim ~~21~~ 1, wherein the data packet includes location information.

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26. (Currently amended) The method of claim 4 ~~21~~, wherein the ~~generating a~~ symmetric session key is generated ~~at a first device further comprises generating the symmetric session key~~ based on a random number.

27. (Currently amended) ~~A~~ The device of Claim 6, further comprising~~:~~

~~a processor;~~

~~a wireless transceiver coupled to the processor for transmitting an encrypted data packet to a server;~~

a memory coupled to the encryption engine ~~processor~~, the memory having a public key associated with ~~the~~ a server on the wide area network ~~permanently~~ stored therein~~;~~

~~wherein the processor encrypts the encrypted data packet using the public key~~.

28. (Canceled).

29. (Currently amended) A computer readable medium, comprising program instructions for performing a method comprising:

encrypting a payload according to a first encryption algorithm;

adding a header to the encrypted payload to form a data packet;

encrypting the encrypted payload and the header of the data packet according to a second encryption algorithm, the second encryption algorithm being an encryption algorithm used for secured communications over a wireless link ~~so that the payload is at least twice encrypted and the header is at least once encrypted~~;

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transmitting the data packet to a server on a wide area network over a wireless link with a gateway providing access to the wide area network ~~only after at least twice encrypting the payload~~.

Please add new claims 30-35 as follows:

30. (New) The computer readable medium of claim 29, wherein the first algorithm uses a symmetric key.

31. (New) The computer readable medium of claim 29, the method further comprising:

receiving the data packet at the gateway;

decrypting data packet at the gateway by according to the second algorithm ~~first device~~;

forwarding the recovered data packet to a computer on the wide area network; and

decrypting the payload at the computer on the wide area network according to the first algorithm.

32. (New) The computer readable medium of claim 29, wherein the first algorithm uses a symmetric session key.

33. (New) The computer readable medium of claim 29, wherein the first algorithm comprises at least one of the encryption algorithms DESX or DES.

34. (New) The computer readable medium of claim 29, wherein the data packet

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includes location information.

35. (New) The computer readable medium of claim 32, wherein the symmetric session key is generated based on a random number.

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